Diversity Workbench – network installations at a GFBio Collection Data Center

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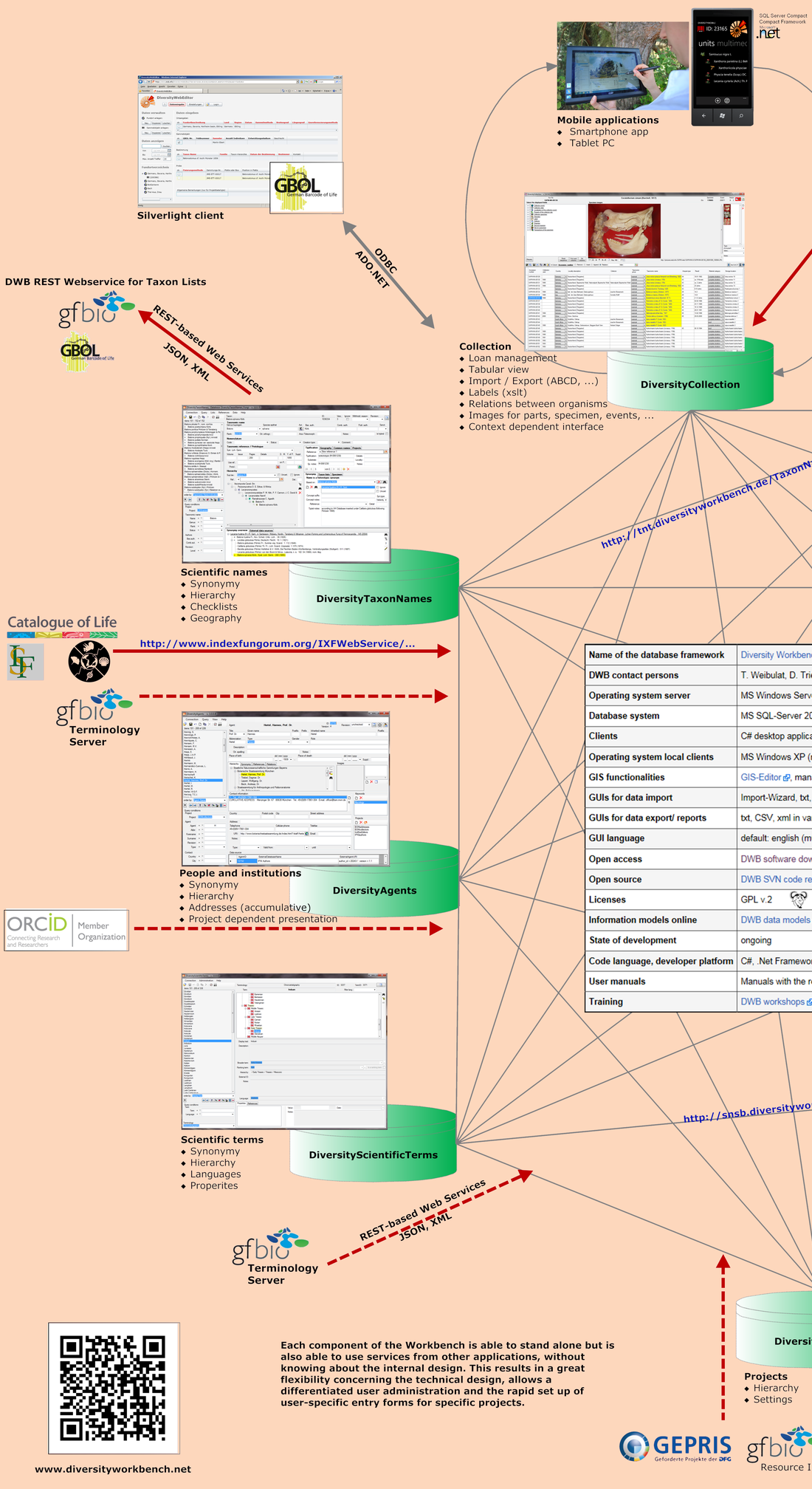
The Diversity Workbench (DWB) is a virtual research environment and platform for the management, curation, quality control and analysis of data in biodiversity, ecological and environmental research. The DWB framework includes a set of Microsoft SQL Server databases and tools for data import, editing, maintenance and storage as well as data export. It provides a sophisticated user rights management and history control. The DWB source code is available under the GPL v. 2.0 license. The code repository, documentations, manuals and a download center are accessible under www.diversityworkbench.net. An application for smartphones designed for biologists monitoring data in the field is available (www.diversitymobile.net). Installations of the system may be run locally or by remote database access achieved via internet. The DWB network installation at the SNSB IT Center serves more than 50 projects with around 150 users.



The interoperability, flexibility and scalability are the result of a conceptual design relying on data domains addressing content areas (e.g. collection and observation data, sampling plots, trait data, terminologies, taxonomies etc.). Each of the12 modules may be installed as a stand-alone application or interlinked by external identifiers (URIs) with one or more of the other 11 modules, without knowing about the internal design. This makes the management system appropriate for individual researchers, for research groups and for large research projects as well as institutional data centers as the so-called Collection Data Centers of the 'German Federation for Biological Data (GFBio)'.

Currently there are three GFBio Collection Data Centers with their own DWB network installations. They all have access to freely available content services. Additional RESTful web services supplement the offer. The installations are part of the curatorial and archival backbone and sustainable infrastructure of GFBio. Each DWB network installation facilitates the processing of highly structured research data starting with the ingestion as well as management, preservation and dissemination for access and publication.